



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,123	12/31/2003	Steven M. Blumenfeld	06975-421001 / Communicat	1741
26171	7590	05/14/2008	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			WANG, KENT F	
			ART UNIT	PAPER NUMBER
			2622	
			MAIL DATE	DELIVERY MODE
			05/14/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/748,123	<b>Applicant(s)</b> BLUMENFELD, STEVEN M.	
	<b>Examiner</b> KENT WANG	<b>Art Unit</b> 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-37 and 41-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-37 and 41-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendments, filed on 03/03/2008, have been entered and made of record. Claims 1-8, 10-37 and 41-43 are pending.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-8, 10-37 and 41-43 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-5, 8, 10-12, 14-21, 23-37, and 41-43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over McClintock (US 5,598,208) in view of Valleriano (US 2005/0093976).

Regarding claim 1, McClintock discloses a method of presenting a user with a multimedia experience (video viewing and recording) corresponding to an entertainment event or venue (amusement ride such as a roller coaster), the method comprising:

- managing a sensor array (a plurality of video cameras 22, Fig 5) having at least two sensors (22a, 22b, 22c, and 22d, Fig 5) that are configured to provide a stream of data units (a plurality of video monitors showing the selected sequential output of the video) (col. 4, line 62 to col. 5, line 13 and col. 5, lines 52-64);

Art Unit: 2622

- associating the location information with the sensors (n video cameras 202a to 202d, Fig 7) in the sensor array (position sensors of camera 206, Fig 7) (col. 8, lines 39-57);
- enabling the user to perceive a map (viewstation 30, Fig 2) related to the entertainment event or venue (current events being viewed) (col. 5, line 52 to col. 6, line 4);
- relating the perceived map (viewstation 30, Fig 2) to one or more of the sensors (respectively video cameras 22a-22d) in the sensor array (col. 6, lines 5-35);
- receiving a request from the user (require a payment by the user for service) identifying a selected position within the map (user selects which of the images viewed on the monitors is to be recorded coupled to the video cameras 304a-304d, Fig 12) (col. 5, lines 52-65 and col. 10, line 55 to col. 11 line 7);
- identifying one or more of the sensors in the sensor array corresponding to the selected position (user could change instantaneously which view is being recorded) (col. 9, line 54 to col. 10, line 5); and
- presenting to the user the multimedia experience based on one or more streams of data units (receive an overair broadcast video signal from each of cameras) associated with the identified sensors (user selects video signal from cameras 304a-304d, Fig 11) (col. 10, lines 28-44).

McClintock does not explicitly disclose determining locations for the sensors in the sensor array to provide location information. However Valleriano does teach a method of presenting a user with a multimedia experience (a playing field within which players within a

defined space are photographed) corresponding to an entertainment event or venue (a sports event such as a soccer game), the method comprising determining locations (three-dimensional location data) for the sensors (camera 20, Fig 1) in the sensor array to provide location information (camera position) (multiple radio frequency identification (RFID) tags attached to the camera are used to determine the camera line of sight and used by the tracking system 80 to convert the three-dimensional location data obtained from the multiple camera tags to camera line-of-sight data and is recorded in one of the databases, i.e., either in the participant database 102, the other features database or the camera position database) ([0056]-[0058] and Figs 5A-5C, Valleriano).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to choose the tracking system as taught by Valleriano into McClintock's video viewing and recording system, so as the camera at a given location has a determinable orientation and field of view that encompasses at least a portion of the space, thus easily correlate asynchronously captured event data and images in a three dimensional volumetric space on a playing field ([0014]-[0015], Valleriano)

Regarding claim 2, McClintock discloses more than one sensor (cameras 22a, 22b, 22c, and 22d, Fig 5) in the sensor array (a plurality of video camera 22, Fig 5) is identified, and wherein presenting to the user the multimedia experience (video viewing and recording) includes providing a multimedia experience based on streams of data received (receive an overair broadcast video signal from each of cameras) from each of the identified sensors (n cameras 304a to 304d, Fig 11) (col. 4, lines 62-66 and col. 10, lines 28-44).

Regarding claim 3, McClintock discloses managing the sensor array (a plurality of video cameras 22, Fig 5) and associating the location information includes operating multiple camera systems (cameras 22a, 22b, 22c, and 22d, Fig 5) where the camera systems include a video capture system (video cameras) and a location provider system (viewstation 30, Fig 2) (col. 4, lines 62-66 and col. 5, lines 52-65).

Regarding claim 4, the limitations of claim 1 are taught above, Valleriano does teach operating the multiple camera systems (digital video cameras 20, Fig 1) includes determining location information (position information) using a Global Positioning system receiver (a GPS technologies) ([0056], Valleriano).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to choose the GPS technologies as taught by Valleriano into McClintock's video viewing and recording system, so as to easily determine where a camera is located and the direction of its line of sight ([0056], Valleriano).

Regarding claim 5, McClintock discloses operating the multiple camera systems (a plurality of video cameras 22, Fig 5) includes operating two or more systems that provide video (a plurality of video monitors 30, Fig 2) (col. 5, lines 52-65).

Regarding claim 8, McClintock discloses managing the sensor array (a plurality of video cameras 22, Fig 5) include managing more than one type of sensor (various sensors: roller coaster sensor 52, positional sensor 206, video camera 202) (col. 7, lines 32-46 and Fig 5, 7).

Regarding claim 10, the limitations of claim 1 are taught above, Valleriano does teach determining the location for the sensor (camera position) includes determining the location

(three-dimensional location data) relative to an architectural structure (tracking system 80) for the sensor in an entertainment venue (a sports event such as a soccer game) ([0057]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to choose the tracking system as taught by Valleriano into McClintock's video viewing and recording system, so as to easily correlate asynchronously captured event data and images in a three dimensional volumetric space on a playing field ([0014]-[0015], Valleriano)

Regarding claim 11, the limitations of claim 1 are taught above, Valleriano does teach using the location for the sensor (camera position) in the entertainment venue (a sports event such as a soccer game) to determine metadata descriptive (i.e. camera ID, photographer ID, camera line-of-sight data and a field of view, Fig 1) of the entertainment experience ([0055], [0057]).

Regarding claim 12, the limitations of claim 1 are taught above, Valleriano does teach enabling the user to perceive and relating the perceived map includes using metadata (i.e. camera ID, photographer ID, camera line-of-sight data and a field of view, Fig 1) to describe the user experience associated with the sensor ([0055], [0057]).

Regarding claim 14, McClintock discloses determining a permission level for the user (each user would pay in order to gain access to the system)(col. 7, lines 47-66).

Regarding claim 15, McClintock discloses determining the permission level includes determining a level of access to which the user has subscribed (each user could be supplied with a code index which informs the user of a unique identification code to join in the action)(col. 7, lines 47-66).

Regarding claim 16, McClintock discloses determining the permission level (regulates access) includes identifying sensors (coupled to a video system at various locations throughout the event venue) that are accessible and inaccessible to the user, and regulating access (regulates access) by the user in response to the permission level (user would key in with the remote control 116, Fig 6B)(col. 8, lines 18-31).

Regarding claim 17, this claim recites same limitations as claim 1. Thus it is analyzed and rejected as previously discussed with respect to claim 1 above.

Regarding claim 18, McClintock discloses notifying the user about the availability (user could change instantaneously which view is being recorded) includes enabling the user to receive to the stream of data units (receive an overair broadcast video signal from each of cameras) from the better matching sensor (user selects video signal from cameras 304a-304d, Fig 11) (col. 9, line 54 to col. 10, line 5 and col. 10, lines 28-44).

Regarding claim 19, McClintock discloses notifying the user about the availability (user could change instantaneously which view is being recorded) includes enabling the user to upgrade a permission level so that the user may receive a stream of data units from the better matching sensor (each user would pay in order to gain access to the system)(col. 7, lines 47-66).

Regarding claim 20, McClintock discloses determining that the permission level supports access (regulates access) to the stream of data units from the better matching sensor before enabling access to the stream of data units from the better matching sensor (receive an overair broadcast video signal from each of cameras) (col. 9, line 54 to col. 10, line 5 and col. 10, lines 28-44).



Regarding claim 21, McClintock discloses presenting to the user the multimedia experience (video viewing and recording) includes combining the one or more stream of data units (receive an overair broadcast video signal from each of cameras) with other streams of data units from other sensors (user selects video signal from cameras 304a-304d, Fig 11) in the sensor array (a plurality of video cameras 22, Fig 5) into a combined stream of data units and enabling the user to access the combined stream of data units (col. 9, line 54 to col. 10, line 5 and col. 10, lines 28-44).

Regarding claim 23, McClintock discloses combining the one or more stream of data units (an overair broadcast video signal from each of cameras) includes enabling presentation of a simulated view from a location where no sensor is located (at remote site with a Video Walkman VCR modified to display various views and monitors various camera perspectives in real time) (col. 9, line 54 to col. 10, line 5).

Regarding claim 24, McClintock discloses presenting to the user the multimedia experience (video viewing and recording) includes performing intermediary processing on the one or more streams of data units (an overair broadcast video signal from each of cameras) to generate an edited stream of data units and enabling the user to access the edited stream (user selects video signal from cameras 304a-304d, Fig 11) (col. 10, lines 28-44).

As to claims 25 and 37, these claims differ from claim 1 only in that the claim 1 is a method claim whereas claims 25 and 37 are apparatus. Thus the apparatus claims 25 and 37 are analyzed and rejected as previously discussed with respect to claim 1 above.

Regarding claims 26, 27, 28, 29, and 33, these claims recite same limitations as claims 13, 14, 15, 16, and 20, respectively. Thus they are analyzed and rejected as previously discussed with respect to claims 13, 14, 15, 16, and 20 above.

Regarding claims 30, 31, and 32, these claims recite same limitations as claims 17, 18, and 19, respectively. Thus they are analyzed and rejected as previously discussed with respect to claims 17, 18, and 19 above.

Regarding claims 34, 35, and 36, these claims recite same limitations as claims 21, 22, and 23, respectively. Thus they are analyzed and rejected as previously discussed with respect to claims 21, 22, and 23 above.

Regarding claims 41, 42, and 43, these claims recite same limitations as claim 4. Thus they are analyzed and rejected as previously discussed with respect to claim 4 above.

5. Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over McClintock (US 5,598,208) in view of Valleriano (US 2005/0093976), and further in view of Bernardo (US 2002/0047895).

Regarding claim 13, the limitations of claim 1 are taught above, Bernardo discloses enabling the user to perceive the map and relating the perceived map (retrieved composite image and map) includes generating a web page (a particular web page Fig 16) enabling the user to navigate among the sensors (video camera) in the sensor array (digital video cameras 10) and to select one or more of the sensors in the sensor array ([0083]-[0086], Bernardo).

Thus, it would have been obvious to one of ordinary skill in the art to have included the web page as taught by Bernardo into McClintock and Valleriano's video viewing and recording system, as to provide a hyperlink for retrieving and displaying the composite

images and association information preferably on a separate browser window ([0086], Bernardo).

6. Claims 6 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over McClintock (US 5,598,208) in view of Valleriano (US 2005/0093976), and further in view of Ritchey (US 5495576).

Regarding claim 6, the limitations of claim 1 are taught above, McClintock and Valleriano do not explicitly disclose managing the sensor array and associating the location information includes operating multiple microphone systems, where the microphone systems include a sound capture system and a location provider system. However Ritchey does teach managing the sensor array (sensor array 36, Fig 5) and associating the location information (sensors location) includes operating multiple microphone systems (microphones 39a-39f, Figs 4-5), where the microphone systems (microphones 39a-39f,) include a sound capture system (acoustical system) and a location provider system (col. 10, lines 17-30 and col. 13, lines 24-60, Ritchey).

Thus, it would have been obvious to one of ordinary skill in the art to have included the acoustical system as taught by Ritchey into McClintock and Valleriano's video viewing and recording system, as to provide a multimedia system which could performing a spherical acoustical field of regard coverage about a location ([0034], Ritchey).

Regarding claim 22, Ritchey discloses combining the one or more streams of data units includes presenting a three dimensional presentation (three-dimensional computer generated model that comprises the virtual reality system presented to a participant) (col. 7, lines 30-54, Ritchey).

Thus, it would have been obvious to one of ordinary skill in the art to have included the three dimensional presentation as taught by Ritchey into McClintock and Valleriano's video viewing and recording system, as to provide a virtual reality/telepresence panoramic three dimensional images associated a three dimensional audio systems ([0034], Ritchey).

7. Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over McClintock in view of Valleriano and Ritchey, and further in view of Bernardo (US 2002/0047895).

Regarding claim 7, the limitations of claims 1 and 6 are taught above, McClintock, Valleriano, and Ritchey do not explicitly disclose operating the multiple camera systems includes using the location provider system of the microphone system to determine location information using at least one of a Global Positioning system receiver, a gyroscope, and a local beacon. However Bernardo does teach operating the multiple camera systems (digital video cameras 10, Fig 1) includes determining location information (position information) using at least one of a Global Positioning system receiver (a GPS receiver 16, Fig 1), a gyroscope, and a local beacon ([0033]-[0034], Bernardo).

Thus, it would have been obvious to one of ordinary skill in the art to have included the GPS receiver as taught by Bernardo into McClintock, Valleriano, and Ritchey's video viewing and recording system, as to provide a more accurate calculation of the position information ([0034], Bernardo).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Oya et al. (US 6,208,379), Jain et al. (US 5,745,126), Moezzi et al. (US 5,850,352), and Mottur et al. (US 7,199,817).

***Inquiries***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Wang whose telephone number is 571-270-1703. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-270-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KW/TH  
9 May 2008

***/Ngoc-Yen T. VU/  
Supervisory Patent Examiner, Art Unit 2622***